## Appendix G-1 Nutrition and Health Research Institutes and Dairy Foods Research Centers, 2004

## **Nutrition and Health Research Institutes**

## Diet, Genetics, and Heart Disease Institute

Louisiana State University, Pennington Biomedical Research Center: Relationship of Low-Fat Diets to Heart Disease

#### **Genetics and Nutrition Institute**

Children's Hospital, Oakland Research Institute: Relationship of Genetics, Dietary Fat (Especially Dairy Fat), and Heart Disease

## **Dairy Foods Research Centers**

## California Dairy Research Foundation

(University of California–Davis and California Polytechnic State University–San Luis Obispo) Specializes in product technology development, ingredient technology, product health enhancement properties, food safety, and quality assurance.

## Minnesota/South Dakota Dairy Food Research Center

(University of Minnesota–St. Paul and South Dakota State University–Brookings) Concentrates on natural and processed cheese functionality and flavor, fluid milk flavor and shelf life, genomics of probiotic bacteria, and utilization of acid and salt whey.

## **Northeast Dairy Foods Research Center**

(Cornell University–Ithaca and University of Vermont–Burlington)

Focuses attention on developing and improving processing technologies to enhance dairy product quality, safety, and functionality, improving the safety of foods and processing systems, and modifying dairy product composition to ensure that dairy foods and ingredients remain a part of a healthy diet.

#### **Southeast Dairy Foods Research Center**

(North Carolina State University–Raleigh and Mississippi State University–Starkville) Specializes in milk and whey ingredient functionality, thermal and biological processing, sensory properties of cheese and dairy ingredients, dairy food safety, and microbial technologies for starter cultures and probiotics.

## Western Dairy Center

(Utah State University-Logan, Oregon State University-Corvalis, Washington State University-Pullman, and University of Idaho-Moscow)

Specializes in cheese flavor and functionality, fluid milk processing, whey and milk utilization, and microbial genetics and physiology.



## Appendix G-1, continued

## Wisconsin Center for Dairy Research

(University of Wisconsin–Madison)

Explores functional flavor and physical properties of cheese and cheese products, whey and whey components, and milk components used as ingredients and as finished products, cheese making and whey processing and separation procedures, use of milkfat, and food safety and quality technology.

# Appendix G-2 Dairy Foods Competitive Research Activities, 2004

## Principal Investigator, Institution, and Project Title

William R. Aimutis, Ph.D. (Land O' Lakes): Physical and Biochemical Changes Associated with Shredded Cheese During Ripening [completed in 2004]

Valente B. Alvarez, Ph.D. (Ohio State University Research Foundation): Flavor Changes During Extended Shelf Life of PET Bottled Ultrapasteurized Milk [continued in 2004]

Susan E. Duncan, Ph.D. (Virginia Polytechnic Institute): Controlled Release of Antioxidants Polymer Films into Milk [completed in 2004]

**Robert W. Hutkins, Ph.D.** (Virginia Polytechnic Institute): Utilization of Fructooligosaccharides by Probiotic Bacteria [completed in 2004]

**Michael E. Mangino, Ph.D.** (Ohio State University Research Foundation): Partial Denaturation to Improve Heat Stability of Whey Protein – Part II [completed in 2004]

**Joseph E. Marcy, Ph.D.** (Virginia Polytechnic Institute): Improved Uses of Natamycin to Prevent Mold Spoilage of Cheese [completed in 2004]; Active Packaging to Improve the Quality of UHT Milk [completed in 2004]; Ensuring Stability of Natamycin on Shredded Cheese to Prevent Mold Growth [continued in 2004]

**John U. McGregor, Ph.D.** (Clemson University): Fluid Dairy Products as Ingredients in Freshly Prepared Coffee House [completed in 2004]; Enhancing the Shelf Life of Whole Milk Powder [completed in 2004]

**Charles Morr** (Independent): Developing a Membrane Fractionation Process Removing Lactose from Skim Milk [began in 2004]

Ronald L. Richter, Ph.D. (Texas A&M University): Effects of Formulation and Processing on the Emulsion Stability and Sedimentation of Retort Sterilized Dairy-Based Nutritional Products—Part II [completed in 2004]; Control of Properties/Stability of High Whey Protein Concentration Retorted Beverages [completed in 2004]

**K. Schmidt, Ph.D.** (Kansas State University): Ingredient Technology and Interactions for Stable, Nutritionally Designed Milk-Based Beverages [continued in 2004]

Richard L. Stroshine, Ph.D. (Purdue Research Foundation): Low Field Proton Magnetic Resonance for On-Line Monitoring of the Moisture Content of Processed Cheese and Other Dairy Products [completed in 2004]



## Appendix G-2, continued

Margaret Swearingen, Ph.D. (Land O' Lakes): Calcium Lactate Levels and Incidence of [completed in 2004]

## Appendix G-3 Nutrition Competitive Research Activities, 2004

## Principal Investigator, Institution, and Project Title

**Dale E. Bauman, Ph.D.** (Cornell University): Effect of Milkfat-Derived Trans Fatty Acids on Changes in Plasma Lipoproteins Related to the Development of CHD [completed in 2004]

Jean Harvey-Berino, Ph.D. (University of Vermont): Can Dairy Enhance Weight Loss? [completed in 2004]

Leann L. Birch, Ph.D. (Pennsylvania State University): Parental Influence on Girls' Calcium Intake and Bone Mineral Content and Weight Status [completed in 2004]; Parental Influence on Girls' Calcium Intake and Bone Mineral Content and Weight Status—Phase II [began in 2004]

Gary Chan, M.D. (Primary Children's Medical Center Foundation): Effects of Dairy Foods on Pregnant Teenagers and Their Infants [completed in 2004]

Joseph Donnelly, Ph.D. (University of Kansas Center for Research, Inc.): The Effects of Dairy Intake on Weight Maintenance and Metabolic Profile [continued in 2004]

Adam Drewnowski, Ph.D. (University of Washington): New Measures of Nutrient Density and Nutrient Content Cost [completed in 2004]

**Penny Kris-Eatherton, Ph.D.** (Pennsylvania State University): Effects of a Dairy-Rich Diet on Blood Pressure and Vascular Reactivity [continued in 2004]; Role of LDL and HDL Particle Size in Response to Diet Susceptibility to Oxidative Modification [completed in 2004]

Christine Eonomos, Ph.D. (Tufts University): What Predicts Dairy Intake, Bone Mass, and Body Composition in Early Children [continued in 2004]

Lisa Harnack, Ph.D. (University of Minnesota): Beverage Consumption of Middle School Aged Children: Health and Assessment Issues [completed in 2004]

**Stan Heshka, Ph.D.** (St. Luke's-Roosevelt Hospital): The Effect of a Mixed Nutrient Versus a Single Nutrient Beverage on Energy Metabolism, Substrate Oxidation, and Indices of Satiety and Food Intake in Children [continued in 2004]

**Steve Hertzler, Ph.D.** (Ohio State University): Colonic Bacterial Adaptation to Lactose in African-American Maldigesters [completed in 2004]

**James Hill, Ph.D.** (University of Colorado): Role of Dairy Products in Promoting Fat Oxidation in Humans [completed in 2004]



## Appendix G-3, continued

**Bess Dawson-Hughes, Ph.D.** (Tufts University): Dietary Protein and Calcium Homeostasis: Impact of Aromatic Versus Branched-Chain Amino Acids on Urinary Calcium Excretion [completed in 2004]

Clement Ip, Ph.D. (Roswell Park Cancer Institute): Mammary Cancer Prevention by CLA-Butter [completed in 2004]

Jeanette Newton-Keith, M.D. (University of Chicago): Misperceptions of Lactose Intolerance in African Americans [completed in 2004]

**Teresa A. Marshall, Ph.D.** (University of Iowa): Assessment of Associations Between Consumption of Milk and Milk Products and Growth and Body Composition in the Young Child [completed in 2004]

Richard Mattes, Ph.D. (Purdue University): Effect of Dairy Product Consumption on Food Intake and Hunger in Adult Humans [began in 2004]

Edward Melanson, Ph.D. (University of Colorado): Effects of High and Low Calcium Diets on Fat Metabolism During and After Exercise [began in 2004]

J. Metz, Ph.D. (Oregon Health Sciences University): Lowfat Dairy Products Reduce Antihypertensive Drug Therapy-Phase II [completed in 2003]

**Vikram V. Mistry, Ph.D.** (South Dakota State University): Effect of Processed Cheese With and Without Vitamin D<sub>3</sub> on Vitamin D Status, Parathyroid Hormone, and Bone Turnover in the Elderly [completed in 2004]

Lynn L. Moore, Ph.D. (Boston University School of Medicine): Effects of Milk and Milk Products on Changes in Body Fat and Risk of Obesity Throughout Childhood [completed in 2004]; The Effect of Dietary Calcium on Body Fat Levels in Children and Adults—Phase II [completed in 2004]; Dairy Intake: Its Determinants and Relation to a Healthy Diet [continued in 2004]; and Dietary Intake Patterns and Metabolic Syndrome Among Children and Adolescents [began in 2004]

Ratna Mukherjea, Ph.D. (Children's Hospital, Oakland Research Institute): Effect of Moderate Dairy Intake on Insulin Resistance, Glucose Tolerance, and Body Fat in Overweight Young Adolescent Girls [began in 2004]

Aviva Must, Ph.D. (Tufts University): 3-A-Day of Dairy: Related Dietary and Behavioral Factors in Adolescent Girls [completed in 2004]

## Appendix G-3, continued

Theresa A. Nicklas, Ph.D. (Baylor College of Medicine): Environmental Influences on Children's Consumption of Dairy Products—Family Environment [completed in 2004]; Dietary Calcium Intake and Dairy Product Consumption by Children and Young Adults—Nutritional Impact and Health Outcomes [completed in 2004]; and Environmental Influences on Children's Food Consumption, Specifically Dairy Products—Day Care Environment [completed in 2004]

**Stuart Phillips, Ph.D.** (McMaster University): The Effectiveness of Milk Consumption in the Promotion of Resistance Training-induced Lean Mass Gains in Novice Weightlifters: Continuation [began in 2004]

**Debra Sullivan, Ph.D.** (University of Kansas Medical Center): Effects of Increased Dairy Product Consumption on Blood Pressure in Multi-Ethnic Population of Elementary School Children [completed in 2004]; Synergistic Effect of Dairy Foods on Metabolism—A Mechanistic Study [continued in 2004]

**Dorothy Teegarden, Ph.D.** (Purdue Research Foundation): Effect of Calcium Education Intervention on Body Fat Mass in Adolescents [continued in 2004]

Warren Thompson, M.D. (The Mayo Clinic): Effects of High Dairy, High Fiber, Low Glycemic Index, Low Energy Density Diet on Weight, Body Fat, and Glucose Tolerance [completed in 2004]

Connie Weaver, Ph.D. (Purdue University): Dairy's Calcium Carbonate in Promoting and Retaining Peak Bone Mass [began in 2004]; Calcium, Dairy, and Body Fat in Adolescents [began in 2004]

Michael B. Zemel, Ph.D. (University of Tennessee Research Foundation): Role of Dairy Products in Weight Loss: A Multi-Center Trial [completed in 2004]; Role of Dairy Components in Weight Control and Fat Loss [began in 2004]; and Role of Dairy Products in Weight Maintenance: Prevention of Weight Regain Following Weight Loss [continued in 2004]

